Additional information on study programmes: http://www.fkkt.uni-li.si/en/studv/

#### Students office:

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and Informatics **Biological center** 

Faculty of Biotechnology

# **Professional Study Programme CHEMICAL TECHNOLOGY**

Chemical technology is focused on the practical aspects of industrial chemistry and interdisciplinary combines chemistry, physics, mathematics and other sciences to produce various products, while all the time taking care of safety, environmental and economical aspects of the production process. Chemical technologists conduct and improve production processes both on laboratory and on industrial level. In the 1<sup>st</sup> Cycle Professional Study Programme Chemical Technology, students gain the basic knowledge of mathematics, natural sciences, and technics, while learning to solve the practical technological problems.

### Access requirements:

- completed Matura exam or
- completed Vocational Matura exam or
- any completed four-year secondary school programme before 1.6.1995.

Study programme is a 3-year (6 semester) programme with 180 credit points. Graduates are awarded the title graduated engineer of chemical technology (professional): (M) "diplomirani inženir kemijske tehnologije (VS)" or (F) "diplomirana inženirka kemijske tehnologije (VS)" or (abbreviated) "dipl. inž. kem. tehnol. (VS)".

Graduates are employable in chemical, food, pharmaceutical, and similar industries, as well as in state institutions, e.g. as inspectors.

Graduates of chemical technology from UL FKKT are employable also abroad, since the study programme has been synchronized with the European requirements and is enlisted in the FEANI INDEX of the principal European engineering organisation FEANI.

# What to do after the completion of the study programme?

Graduates of all 1st cycle study programmes at UL FKKT have good employment possibilities. For those who want to continue their studies, UL FKKT offers several 2<sup>nd</sup> cycle (Masters) study programmes: chemistry, chemical engineering, biochemistry, technical safety, chemical education. After the completion of 2<sup>nd</sup> cycle programme, it is possible to continue the studies at 3<sup>rd</sup> cycle (doctoral) study programme Chemical Sciences.

# What else is there for students of UL FKKT?

Students can join and start their science research work already during the 1st cycle studies. Their research projects successful obtain the eminent Prešernova, Krka and other awards; they also participate at international competitions.

Faculty encourages student international exchange via Erasmus+ programme, which makes possible for students to conduct part of the studies or research work abroad at renowned universities across Europe.

Students can join the Student Council FKKT, whose members are only students and whose function is to represent the students in various working bodies of the Faculty. Student Council also organizes different events, such as Freshmen's Night (Brucovanje), participation at sports and scientific competition Tehnologijada, exhibitions and other projects.

Student Organization FKKT organizes various additional activities for students: excursions, workshops, sports and recreation activities, picnics, charity days...

> You will never be bored at UL FKKT! Come and enrol in our study programmes!



#### University of Ljubljana Faculty of Chemistry and Chemical Technology



# 1<sup>st</sup> Cycle Study Programmes at UL FKKT

## Faculty of Chemistry and Chemical Technology,

University of Liubliana, offers five 1<sup>st</sup> cycle study programmes. Chemical studies have a long tradition at UL, since the University foundation in year 1919. Faculty is very active in the field of scientific research and the interested students can participate in the research already at the first level of study. At the same time, Faculty is active and strongly connected with Slovenian chemical and similar industries. Completion of the UL FKKT study programmes thus opens broad employment possibilities.



# **University Study Programme CHEMISTRY**

**Chemistry** is one of the fundamental natural sciences with a strong experimental emphasis. New knowledge is gained mainly by practical experiments and by continuously examining and rebuilding the theoretical bases and models. In the 1st Cycle University Study Programme Chemistry, students gain a broad fundamental knowledge from all principal areas of chemistry: inorganic, organic, physical and analytical chemistry, plus basics of biochemistry and chemical engineering. Additionally, they gain a solid foundation in mathematics and physics. But above all, they acquire the necessary practical knowledge for the laboratory work.

## Access requirements:

#### completed Matura exam or

- Passed the vocational matura examination in secondary school programmes (chemical technician, environmental technician, electrotechnician, electronic communications technician, computer technician, mechanical engineering technician, technician of mechatronic, glass technician, wood technician, food processing technician, nature protection technician, agricultural enterprise technician, horticultural technician, construction technician, metallurgical technician, pharmaceutical technician, medical laboratory technician) and an exam in one of the general matura subjects, with the chosen subject not being a subject that the candidate had already passed for the vocational matura examination and must be either Chemistry or Physics or Mathematics or Biology;
- any completed four-year secondary school programme before 1.6.1995.

Study programme is a 3-year (6 semester) programme with 180 credit points. Graduates are awarded the title graduated chemist (university): (M) "diplomirani kemik (UN)" or (F) "diplomirana kemičarka (UN)" or (abbreviated) "dipl. kem. (UN)".

Graduates are employable in the chemical laboratories of the chemical and similar industries: research and public health institutes: surveillance and inspection institutions; several of them start private businesses. Completed 1st cycle study programme chemistry enables a direct enrolment in 2<sup>nd</sup> cycle (Masters) study programme in chemistry.

Graduates of chemistry from UL FKKT are employable also abroad, since the study programme has been synchronized with the European requirements and has gained an international label Chemistry Eurobachelor.

# **University Study Programme** CHEMICAL ENGINEERING

Chemical engineering is one of the fundamental technical disciplines, but different from other engineering sciences due to its profound interdisciplinary character. It is based on chemistry, mathematics, physics, and biology, which enables the multilevel approach to the processes and technologies: molecular, nanomaterial, microtechnological, industrial, and globally environmental. In the 1st Cycle University Study Programme Chemical Engineering, students gain the fundamental knowledge of the natural sciences and mathematics, as well as highly professional technical skills. Additionally, they learn to solve the practical problems from the area of engineering and technology.

# Access requirements:

- completed Matura exam or
- completed Vocational Matura exam and pass in additional Matura exam (different from exams in Vocational Matura) or
- any completed four-year secondary school programme before 1 6 1995

Study programme is a 3-year (6 semester) programme with 180 credit points. Graduates are awarded the title graduated chemical engineer (university): (M) "diplomirani inženir kemijskega inženirstva (UN)" or (F) "diplomirana inženirka kemijskega inženirstva (UN)" or (abbreviated) "dipl. inž. kem. inž. (UN)".

Graduates are employable in the chemical, food, pharmaceutical, biotechnological, and electronics industries; in the energetics; environmental technologies; also in the research, educational and counselling institutions. Completed 1st cycle study programme chemical engineering enables a direct enrolment in 2<sup>nd</sup> cycle (Masters) study programme in chemical engineering.

Graduates of chemical engineering from UL FKKT are employable also abroad, since the study programme has been synchronized with the European requirements and is enlisted in the FEANI INDEX of the principal European engineering organisation FEANI.



# **University Study Programme** BIOCHEMISTRY

**Biochemistry** studies the structure, synthesis, degradation, and functioning of the compounds in living organisms, as well as their role in life processes in health and in disease. Biochemists' field of research is in the laboratories and the acquired data are further processed by biochemical informatics methods. In the 1st Cycle University Study Programme Biochemistry, students gain a broad fundamental knowledge of biochemistry and molecular biology, as well as knowledge of chemistry, biology, biochemical informatics, mathematics, and physics. But most important, they acquire the necessary skills for the work in biochemical laboratory.

# Access requirements:

- completed Matura exam or
- Passed the vocational matura examination in secondary school programmes (chemical technician, environmental technician, electrotechnician, electronic communications technician, computer technician, food processing technician, nature protection technician, agricultural enterprise technician, horticultural technician, pharmaceutical technician, medical laboratory technician, health care, veterinary technician, forestry technician) and an exam in one of the general matura subjects, with the chosen subject not being a subject that the candidate had already passed for the vocational matura examination and must be either Chemistry or Physics or Mathematics or Biology;
- any completed four-year secondary school programme before 1.6.1995.

Study programme is a 3-year (6 semester) programme with 180 credit points. Graduates are awarded the title graduated biochemist (university): (M) "diplomirani biokemik (UN)" or (F) "diplomirana biokemičarka (UN)" or (abbreviated) "dipl. biokem. (UN)".

Graduates are employable in biochemical laboratories in the chemical, pharmaceutical, cosmetics, and food industry; in the research and public health institutes: surveillance and inspection institutions: in the sales and representatives offices of biotechnological companies. Completed 1<sup>st</sup> cycle study programme biochemistry enables a direct enrolment in 2<sup>nd</sup> cycle (Masters) study programme in biochemistry.

# **University Study Programme TECHNICAL SAFETY**

Technical safety is an interdisciplinary science dealing with industrial problems regarding the safety, occupational safety, fire safety, safety aspects of environmental protection, risk analysis, and risk management. Research work is conducted on realistic examples from the production processes. In the 1<sup>st</sup> Cycle University Study Programme Technical Safety, students gain general knowledge from natural sciences and technics, as well as highly specialised knowledge from the field of technical and fire safety. They are able to analyse safety problems before, during and after the projects.

## Access requirements:

- completed Matura exam or
- completed Vocational Matura exam and pass in additional Matura exam (different from exams in Vocational Matura) or
- any completed four-year secondary school programme before 1.6.1995.

Study programme is a 3-year (6 semester) programme with 180 credit points. Graduates are awarded the title graduated engineer of technical safety (university): (M) "diplomirani inženir tehniške varnosti (UN)" or (F) "diplomirana inženirka tehniške varnosti (UN)" or (abbreviated) "dipl. inž. teh. var. (UN)".

Graduates are employable in the various industries, companies, and private businesses in the field of occupational safety and fire safety; as well as surveillance and inspection institutions. Completed 1st cycle study programme technical safety enables a direct enrolment in 2<sup>nd</sup> cvcle (Masters) study programme in technical safety.